MONTHLY WEATHER MAP

METEOROLOGICAL SERVICE

DOMINION OF CANADA

DECEMBER 1933

TEMPERATURE

Except for a small portion of southern British Columbia and perhaps a portion of the Arctic Archipelago, December was colder than the normal over the whole of Canada. The maximum departure from average occurred in the Yukon and the Peace and Athabaska valleys of Alberta. In these regions the deficiency was twenty-five to thirty degrees. Over the greater part of the western grain region the deviation was eight to twenty degrees. In the extreme southern valleys of British Columbia temperatures ranged from normal to three degrees above normal. In the northern interior of the same province negative departures ranged from three degrees in the valley of the north Thompson to sixteen degrees in the north Fraser valley and to twenty-nine degrees at the extreme northern boundary.

The western side of Hudson Bay was fifteen degrees colder than a normal December but in Hudson Strait the deficiency was five degrees or less. In northern Ontario the deficiency was ten to fifteen degrees but in southern Ontario two to seven degrees.

In the Laurentian region of Quebec the deficiency was ten to eighteen degrees, but along the St. Lawrence valley and in New Brunswick seven to twelve degrees. In Nova Scotia it was four to eight degrees colder than usual and in Prince Edward Island nine or ten degrees.

Rocky Mountain House, in western Alberta, reported a minimum temperature of seventy degrees below zero.

In eastern Canada the lowest temperature of record was established on the 29th of December at Ottawa, Ont., Montreal, P.Q. and equalled the previous record at Saint John, N.B.

PRECIPITATION

On southern Vancouver Island, in the lower Fraser valley and over much of the southern interior of British Columbia the month was either very wet or very snowy. On the north coast, however, the abnormally cold weather was accompanied by a deficiency of precipitation. There was a severe sleet storm in the lower Fraser valley on the 11th and 12th.

In the Peace River district of Alberta, where the normal December amount is one inch or less, the actual amount recorded was two to three and a half inches. In the foothills of southwestern Alberta, where the normal amount is slightly more than one inch, from two to six inches were recorded. In the vicinity of Edmonton and the region immediately south and east there was also a considerable excess.

Over most of Saskatchewan there was a moderate excess over normal precipitation although the region immediately east of the Alberta boundary and another region east of Saskatoon reported less than an inch.

In Manitoba there was an excess in some southern districts but over the province as a whole, precipitation did not differ very much from normal.

In parts of northwestern Ontario precipitation was about double the usual amount although at Port Arthur the amount was very little in excess. In southern Ontario there were regions of excess in the Georgian Bay and the region of the upper St. Lawerence and the lower Ottawa.

In the upper St. Lawrence valley from Montreal to a point near Quebec City and in some of the counties south of the St. Lawrence there was a considerable excess. In the lower St. Lawrence from Father Point to the Gulf there was a moderate deficiency. Elsewhere in Quebec the precipitation was generally about normal with some local excesses in the Laurentian region.

In the Atlantic provinces heavy snowfalls occurred during the month, particularly on the 26th and 27th. In New Brunswick new records for December snowfall were established. Nearly twice the usual amount of precipitation occurred in New Brunswick while in Prince Edward Island and northwestern Nova Scotia the excess ranged from forty to eighty per cent. Elsewhere in Nova Scotia there were deficiencies of ten to fifty per cent.

The severe cold and heavy snowfall has greatly handicapped the smelt fishing industry along the Miramichi River and Northumberland Straits, while lumbering operations have been retarded owing to the heavy snowfalls.

A. J. CONNOR

SPECIAL REPORTS

NOTE—Column H is Highest Temperature; Column L is Lowest Temperature; Column P is Precipitation in inches; Column I denotes total of bright sunshine in hours during the month; Column Tm is the mean temperature of the current month; Column Sg denotes depth of snow on ground in inches, where given.

BRITISH COLUMBIA

STATION	H	L	P	I	Tm	STATION	H	L	P	I	Tm	STATION	H	L	P	I	Tm
Atlin			0.4		-16°	Vancouver	54°	26°	12.8	30	40°	Greenwood	44°	0°	1.8		
Estevan Point			19.4		42°	New Westminster	56°	26°	12.9			Kaslo	47°	4°	9.6		30°
Sooke	55°	28°	15.2			White Rock	54°	26°	9.7			Cranbrook	48°	-9°	6.1		
Goldstream Lake			21.7			Agassiz	55°	17°	16 7	16		Windermere	44°	-23°	1.9	34	
Port Alberni	53°	25°	20.3			Penticton	51°	2°	3 9			Golden	44°	-34°	8.0		
Victoria	56°	37°	11.1	38	41°	Summerland	50°	3°	3.7	28		Glacier	38°	-10°	14.9		
Shawnigan Lake	59°	24°	17.0			Oliver	51°	2°	1.8	23		Field	42°	-24°	4.4		
Duncan	55°	20°	15.0			Vernon	48°	-1°	3.1	25		Prince George	50°	-50°	3.8	26	0°
Nanaimo	52°	24°	9.9	50		Kamloops	51°	-6°	1 6	41	24°	Prince Rupert	47°	8°	4.8		25°
Courtenay			13.2			Salmon Arm	51°	-2°	3.1	20							

ALBERTA

STATION	H	L	P	I	Tm	Sg	STATION	H	L	P	I	Tm	Sg
Beaverlodge	28°	-43°	3.4	54	-15°		Coleman			6.1			
Fairview	0°	-49°	3.5	23	-19°		Cowley			5.8			
Entrance	54°	-44°	3.5		-8°		Seven Persons			1.6			
Grouard	23°	-55°	3.0		-18°		Winnifred			1.0			
High Prairie	9°	-54°	1.8		-18°		Alix	61°	-40°	1.6			
Kinuso	24°	-52°	1.8		-17°		Hillsdown	56°	-31°	1.6		0°	
Exshaw	52°	-34°	2.6		6°		Jenner	52°	-27°	1.2		2°	
Brooks			1.0				Springdale	51°	-43°	1.5		-8°	
Calgary	56°	-26°	1 3	49	3°		Stettler	55°	-29°	2.4		-6°	
Cardston	55°	-22°	1.9		14°		Edmonton	33°	-36°	2.8	36	-10°	20
Lethbridge	56°	-26°	2.3	46	8°	3	Elk Point	26°	-40°	1.5		-14°	
Macleod	54°	-27°	2.2		11°		Rocky Mountain House	27°	-70°	0.9		-16°	
Medicine Hat	57°	-22°	1.9	17	9°	4	Viking	40°	-40°	2.8		-12°	
Pekisko	52°	-33°	3.4		7°		Wetaskiwin	47°	-34°	1.7		-7°	
Strathmore	57°	-29°	0.8		1°								
Beaver Mines			4.2										

SASKATCHEWAN

Turtleford	27°	-48°	1.3		-11°		Dundurn	42°	-37°	1.3		-5°	
Battleford	30°	-38°	1.5		-9°		Beechy	43°	-32°	0.8		-2°	
Biggar	43°	-31°	0.0		-5°		Swift Current	53°	-22°	1.5	67	7°	
Rosetown	40°	-29°	1.1		-4°		Pennant	56°	-28°	0.8		3°	
Meadow Lake	24°	-50°	1 3		-14°		Gravelbourg	51°	-32°	1.3		5°	
Waseca	35°	-36°	1.4		-10°		Regina	53°	-40°	1.7		-1°	12
Scott	36°	-37°	1.8	46	-7°		Moose Jaw	52°	-30°	2 0	51	3°	
St. Walburg	23°	-52°	1.0		-15°		Qu'Appelle	47°	-33°	1.3	66	0°	8
Prongua			1.5				Indian Head	41°	-36°	1.7		-2°	
Lestock	38°	-37°	1.2		-6°		Yellow Grass	54°	-32°	1.7		3°	
Muenster	30°	-42°	0.0		-11°		Grenfell	43°	-34°	1.7		0°	
Nipawin	23°	-53°	1.1		-14°		Strasbourg	36°	-36°	0.5		-5°	
Prince Albert	25°	-52°	1.4		-12°	15	Francis	45°	-36°	1.7		1°	
Saskatoon	41°	-38°	1.5		-6°		Whitewood	43°	-37°	1.1		0°	
Climax			1.3				Carlyle	40°	-36°	1 4		-4°	
Surprise			0.9				Lumsden	52°	-35°	0.0		0°	
Wapashoe			1.3				Tugaske	49°	-29°	2.9		-1°	
Outlook	44°	-30°	0.8		-2°		Nokomis	38°	-35°	0.9		-4°	
Caron	51°	-3°	1.0		0°		Hubbard	38°	-38°	0.6		-6°	
Shaunavon	47°	-24°	0.0		8°		Strongfield			1.8			
Chaplin	46°	-28°	0.9		2°		Lintlaw	32°	-44°	1.2		-10°	
Willow Creek	47°	-30°	0.0		6°		Lac la Ronge	16°	-56°	1.6		-20°	

MANITOBA

Le Pas	16°	-50°	2.0		-18°		Morden (Experimental Farm)	42°	-36°	2.6	102	-2°	10½
Dauphin	39°	-42°	0.8				Treherne	40°	-34°	1.7			16
Birtle	38°	-40°					Souris	38°	-38°	2.4		-2°	
Russell	36°	-42°	1.0				Ninette	45°	-39°	1.8		0°	
Hamiota	37°	-40°			-4°		Graysville	41°	-38°	1.9		-8°	24
Brandon	40°	-39°	1.0	85	-5°	12	Winnipeg	35°	-42°	1.6	90	-5°	
Minnedosa	36°	-44°	1.4		-5°	17							
Treesbank (St. Albans)	42°	-35°	1.4										

ONTARIO

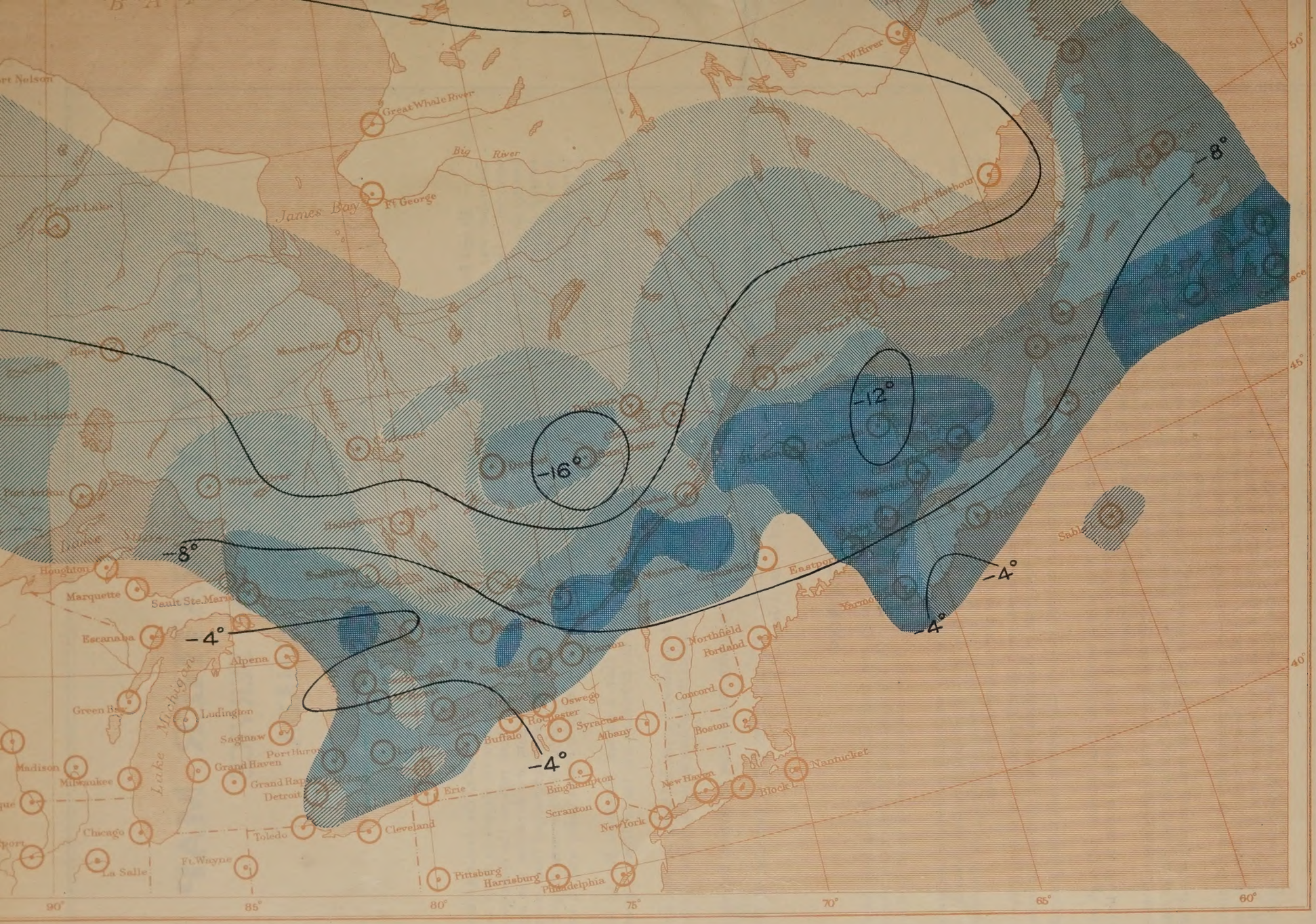
STATION	H	L	P	I	Tm	Sg.	STATION	H	L	P	I	Tm	Sg.
Kenora	35°	-42°	2.1				Mount Forest	47°	-24°	2.6		22°	2
Sioux Lookout			2.8		-6°	28	Barrie	44°	-34°	4.8	48	17°	12
Quorn	44°	-55°	1.3			32	Beeton	48°	-25°	3.9		23°	30
Atikokan	43°	-50°	1.0				Alton	44°	-25°	2.9		20°	2½
Longlac	37°	-50°	2.4		-5°	32	Brucefield	49°	-8°	3.1		24°	
Port Arthur	38°	-28°	1.3		6°	22	Wallaceburg	50°	0°	1.5		29°	
Kapuskasing	35°	-49°	2.6	84	-8°		Harrow	57°	-3°	1.2	47	28°	
Cochrane	34°	-40°	1.8		-5°		Chatham	59°	-2°	1.8	39	28°	
Moosonee	32°	-46°	1 0		-11°		London	53°	-10°	3.5		24°	0
Iroquois Falls	32°	-47°	2.6		-5°		Woodstock	46°	-15°	3 3	50	22°	T
Timmins	37°	-38°	2.1				Paris	49°	-16°	3 1		26°	
Haileybury	40°	-39°	2 1	83	2°	15	Simcoe	54°	-15°	2.8		26°	0
Ruel	38°	-54°	3 1				St Catharines	54°	-4°	3.9	56	27°	
White River	38°	-55°	2.8		-1°	18	Toronto	50°	-22°	3.0	73	24°	
Franz	39°	-52°	2.5			19	Orono	46°	-26°	4.5		19°	
Montreal River	39°	-51°	2.2				Bloomfield	59°	-31°	3.9			4
North Bay	39°	-46°	2.2		6°	15	Peterboro'	45°	-34°	3.7			10
Crystal Falls	39°	-57°	3.1	44	6°	24	Apsley	37°	-47°	4.3		11°	
Madawaska	39°	-55°	1.8		19°	15	Kingston	45°	-30°	3.2	71	18°	3
Providence Bay	44°	-37°	3.0				Brockville	44°	-33°	4.7	83	14°	
Parry Sound	41°	-34°	3.8		15°	8	Morrisburg	43°	-38°	4 1			18
Magnetawan	40°	-51°	3.6		11°	15	Ottawa	40°	-34°	4.9	90	9°	21
Southampton			3.9		22°	6	Ottawa (Exp. Farm)	37°	-38°	2.8	76	5°	18
Lucknow	49°	-10°	2 2				Renfrew	32°	-36°	3.4		9°	
Beatrice	40°	-42°	3.5		12°		Pembroke	38°	-36°	3.5		6°	23½
Walkerton	50°	-17°	3.8		21°	4	Clontarf	41°	-40°	2.8		8°	20

QUEBEC

Cedars	37°	-31°	3.4		10°	9	St. Joachim	39°	-39°	2.3		7°	30
Macdonald College	38°	-30°	3.4		10°	12	Donnacona	34°	-34°	5 1		4°	42
Montréal	36°	-29°	4 4	65	11°	16	Québec	36°	-32°	3.0	65	7°	27
Farnham	39°	-35°	4 0	69	11°	10	Cap Rouge	34°	-33°	2.6	54	8°	32
Brome	45°	-37°	3 8		12°	12	Ste. Anne de la Pocatiére	35°	-27°	2.8	65	7°	25
Lennoxville	40°	-48°	5 5	64	10°		La Ferme	35°	-54°	1.4	87	-6°	22
Sherbrooke	38°	-39°	4 3	60	12°	16	Abitibi	36°	-40°	2 6			28
Beauceville	31°	-32°	2.2		5°		Roberval	34°	-45°	2.7			56
Sorel	35°	-38°	4.7		4°	27	Doucet	32°	-54°	3.1		-7°	36
Lake Mégantic	38°	-38°	4.2		11°	14	Dolbeau	31°	-55°	3 7		-6°	32
Nicolet	38°	-34°	3.8			21	Anticosti			2 4		10°	
St. Gabriel de Brandon	37°	-48°	3.6			24	Father Point			2.1		9°	
Joliette	39°	-38°	1 8		4°		Harrington Harbr			0.7		-9°	36
Huberdeau	35°	-38°	3.8		7°	32	Grindstone	49°	-12°	3.0		18°	30
Maniwaki	33°	-44°	3.8		4°	30	Sanmaur	31°	-52°	2.7	78	-7°	
Mont Laurier	35°	-43°	2.8										

ATLANTIC PROVINCES

Aroostook	32°	-45°	5.6		3°	30	Woodstock	36°	-41°	5.0		6°	52
Bathurst	31°	-25°	4 2		6°	50	Annapolis Royal	50°	-11°	4.4	45	22°	
Chatham	30°	-30°	4.4		7°	30	Digby	50°	-10°	6.1		22°	
Chipman	45°	-36°	6.7		8°		Halifax			3.7		22°	
Edmundston	32°	-30°	5.1		3°	30	Kentville (Experimental Farm)	46°	-12°	3.7	58	18°	15
Fredericton	33°	-25°	5 1	90	9°	48	Liverpool	47°	-10°	2.7		25°	4
Fredericton (Experimental Farm)	34°	-25°	5.1	97	9°	49	Nappan (Experimental Farm)	42°	-20°	3.9	69	14°	
Gagetown	35°	-28°	6.0		11°	27	Sydney	48°	-10°	3.7		21°	8
Grand Falls	40°	-36°	5.2		5°	48	Upper Stewiacke	48°	-22°	3.0		19°	
Harvey	33°	-30°	6 0		8°	67	Yarmouth	45°	-8°	8.2		25°	36
Moncton	48°	-25°	5.5		6°	38	Charlottetown	42°	-17°	5.2		16°	24
Musquash	42°	-23°	5.0				Charlottetown (Experimental Farm)	42°	-18°	5.0	76	15°	
McAdam Junction	39°	-33°	6.7		8°	54	St. Paul Island			3.7		19°	3
Nepisiquit Falls	38°	-30°	4 8		5°		Cape Race, (Nfld)	32°	17°	4.8		24°	37
Richibucto	34°	-24°	6 0		10°	76							
Saint John	43°	-21°	6.2	96	15°	32							
Sussex	44°	-29°	4.8		11°								


-8°
-16°
-12°
-8°
-4°
-4°
-4°
-4°
Great Whale River
Big River
James Bay
Ft George
Port Nelson
Lake Michigan
Houghton
Marquette
Sault Ste. Marie
Escanaba
Alpena
Green Bay
Ludington
Saginaw
Port Huron
Grand Haven
Grand Rapids
Detroit
Milwaukee
Madison
Chicago
Toledo
Cleveland
Erie
La Salle
Ft. Wayne
Buffalo
Oswego
Rochester
Syracuse
Albany
Binghampton
Scranton
New York
Pittsburg
Harrisburg
Philadelphia
Northfield
Portland
Concord
Boston
Nantucket
New Haven
Block I.
Eastport
90°
85°
80°
75°
70°
65°
60°
50°
45°
40°

C, DOMINION OF CANADA.
R MAP
R, 1933
mperature; and total precipitation of the month.
Ellesmere Island
Pond Inlet
Godhaven
Angmagsalik
Godthaab
Julianehaab
Pangnirtung
Nottingham I.
Cape Wolstenholme
Wakeham
Hopes Advance
Resolution
Port Chimo
Port Harrison
Nain
HUDSON'S
90°
85°
80°
75°
70°
65°
60°
55°
50°
45°
40°
35°
60°
55°
+4°
+8°
-4°
-8°
-12°
+8°
+4°
-4°
-8°

REFERENCES.

The Black lines shew the difference from the normal mean Temperature.

The shading shews approximately the precipitation of the month.

- Less than 1 inch
- Less than 2 inches
- Less than 3 inches
- Less than 4 inches
- More than 4 inches

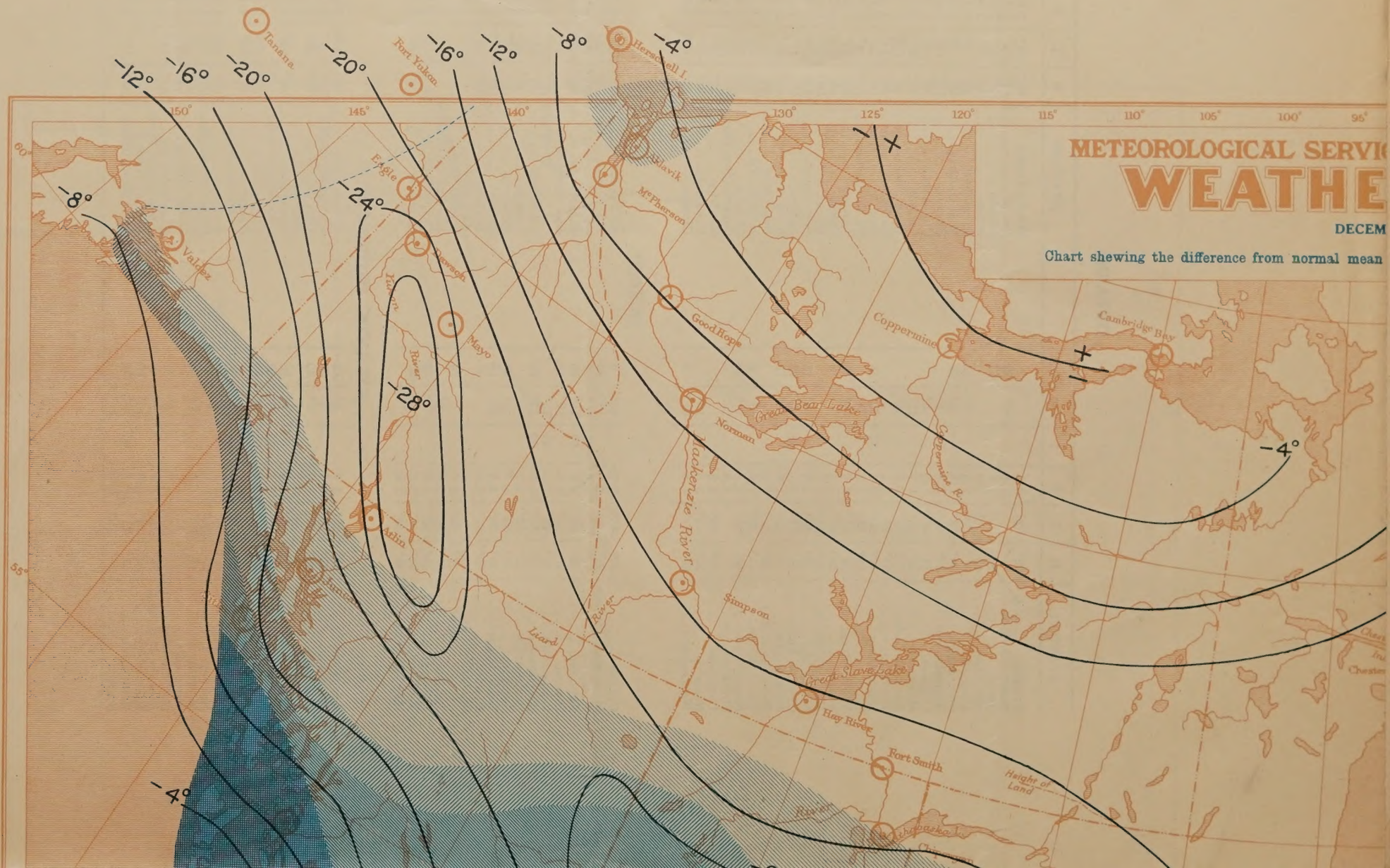

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Chart shewing the difference from normal mean
-12°
-16°
-20°
-20°
-16°
-12°
-8°
-4°
-8°
-24°
-28°
-4°
-4°
Tanana
Fort Yukon
Herschell I.
Aklavik
McPherson
Eagle
Dawson
Mayo
Valdez
Good Hope
Coppermine
Cambridge Bay
Great Bear Lake
Norman
Mackenzie River
Simpson
Liard
River
Great Slave Lake
Hay River
Fort Smith
Height of Land
Athabaska
Peace River
Yukon River
Stewart River
Klondike
Whitehorse
Atlin
Telegraph Creek
Prince Rupert
Hazelton
Fort George
Fort St. John
Dawson Creek
Edmonton
Lesser Slave Lake
Peace River
Grande Prairie
Fort Vermilion
Fort Simpson
Fort Resolution
Fort Chipewyan
Fort McMurray
Lac La Biche
Battleford
Prince Albert
Meadow Lake
Cree Lake
Lake Athabaska
Lake Athabasca
Lake Athabaska
Lake Athabasca
Lake Athabaska
Lake Athabasca